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09/917,314	07/27/2001	Vivek Kashyap	BEA920010015US1	9560
23441	7590	12/16/2004	EXAMINER	
LAW OFFICES OF MICHAEL DRYJA 704 228TH AVENUE NE PMB 694 SAMMAMISH, WA 98074			KHUONG, LEE T	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/917,314

Applicant(s)

KASHYAP, VIVEK

Examiner

Lee Khuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 7 is objected to because of the following informalities: on line 2, the phrase “component each comprise” is suggested to be changed to “component each comprises” for a typo error.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 7-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Albert et al (US 6,704,278) hereinafter referred as Albert.

Regarding claim 1, Albert teaches a Stateful Failover Of Service Managers system.

Fig. 2A teaches a system comprising at least one of:

*a manager component (a service manager 241 Fig. 2A) of a network having programmed therein alternate routes for a destination address (a virtual ip address, col. 8 lines 28-29, a service manager sends instructions to route a packet to a virtual ip address through alternated paths, col. 6 lines 43-60), such that upon failure of a first node (a server 1 as a first node, 221*

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Fig. 2A) *of the network to which the destination address is initially routed* (upon failure of the server 1 within the server cluster 220 Fig. 2A in which a packet is initially routed to, col. 11 lines 5-11), *the manager component selects one of the alternate routes to route the destination address to a second node* (a server 2 as a second node, 222 Fig. 2A) *of the network* (the service manager selects one of the alternated paths to the server 2 within the cluster 220, col. 13 lines 2-9);

*a first switch* (a Forwarding Agent 1, 231 Fig. 2A) *of the network having a port for each of at least a third and a fourth node* (the Foreign Agent 1, 231 Fig. 2A has an output port for each respective node within the cluster 220, in this case the server 1, and 2 will now be considered as the not-shown third and the not-shown fourth node) *of the network such that upon failure of the third node* (upon failure of the server 1 within the server cluster 220 Fig. 2A that a packet is initially routed to, col. 11 lines 5-11), *the first switch remaps a destination address initially mapped to the port for the third node to the port for the fourth node* (the Forwarding Agent modifies the initial routing path from the not-shown third server and to the not-shown fourth server via the port that links the fourth server and its Foreign Agent 1 in Fig. 2A, col. 6 lines 43-60, col. 13 lines 2-9); *and,*

*a second switch* (a Forwarding Agent 2, 232 Fig. 2A) *of the network having an input port for each of at least a fifth* (a server 3 as a fifth node, 223 Fig. 2A) *and a sixth node* (a server 2 will now be considered as the not-shown sixth node, 222 Fig. 2A) *of the network, and a visible output port* (a port link from Forwarding Agent 2 to the server 3 or the fifth node) *and one or more hidden output ports* (a port link from the Forwarding Agent 2 to the server 2 or the sixth node) *to receive an expanded port range from an assigning manager component* (a service manager 241 Fig. 2A as an assigning manager component determines the path with port to the

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server 2, col. 6 lines 43-60, col. 13 lines 2-9), *such that upon failure of fifth node* (upon failure of the server 3 within the server cluster 220 Fig. 2A that a packet is initially routed to, col. 11 lines 5-11), *the second switch uses the expanded port range to remap a destination address initially mapped to the input port for the fifth node to the input port for the sixth node* (the Forwarding Agent modifies the initial routing from the server 3 and routes its packet to the server 2 or the sixth node via the port that links the server 2 or the sixth node and its Foreign Agent 2 in Fig. 2A, col. 6 lines 43-60, col. 13 lines 2-9).

Regarding claim 2, Albert teaches the alternate paths can be routed via Forwarding Agent 1.

Regarding claim 3, the Forwarding Agent 1 (*first switch*) of Albert is inherently teaches at least one internal table is maintained and stored the routing paths via the server 1 (*third node*) or the server 2 (*fourth node*) for the failover scenario set forth in the rejection of claim 1.

Regarding claim 4, the Forwarding Agent 2 (*second switch*) of Albert is inherently teaches at least one internal table is maintained and stored the routing paths via the server 3 (*fifth node*) or the server 2 (*sixth node*) for the failover scenario set forth in the rejection of claim 1.

Regarding claim 7, Albert teaches the service manager 1 and service manager 2 wherein each comprises a manager, Fixed Affinity, that manages subnet, col. 16 lines 51-67, col. 17 lines 13).

Regarding claim 8, it is inherently that each port within a switch has a port ID (*LID*).

Regarding claim 9, this claim has similar limitations as claims 7 and 8 in combined. Therefore, it is rejected under Albert for the same reasons set forth in the rejections of claims 7 and 8.

Regarding claim 10, it is inherently that each server within the server cluster 220 comprises a channel adapter, CA.

Regarding claim 11, this claim has similar limitations of claim 1. Therefore, it is rejected under Albert for the same reasons set forth in the rejection of claim 1.

Regarding claim 12. Albert teaches the service manager (*manager component*) is capable of programming instructions, col. 3 lines 65-67 and col. 4 lines 1-5.

Regarding claim 13, the Foreign Agent 1 switch is capable of providing port range more than one hidden ports, see ports link from Foreign Agent 1 to the server 2 and the server 3 in Fig. 2A in addition to visible output port link from Foreign Agent 1 to the server 1.

Regarding claim 14, this claim has similar limitations of claim 3. Therefore, it is rejected under Albert for the same reasons set forth in the rejection of claim 3.

Regarding claim 15, the Foreign Agent does the translation and routing for the virtual ip address (*the destination address*), col. 6 lines 43-60, col. 13 lines 2-9.

Regarding claim 16, Albert teaches a computer-readable medium that is capable of providing failover and translate virtual ip address to an alternate path, col. 3 lines 65-67 and col. 4 lines 1-5.

Regarding claim 17, this claim has similar limitations of claim 1. Therefore, it is rejected under Albert for the same reasons set forth in the rejection of claim 1, col. 3 lines 65-67 and col. 4 lines 1-5.

Regarding claim 18, this claim has similar limitations of claim 1. Therefore, it is rejected under Albert for the same reasons set forth in the rejection of claim 1, col. 3 lines 65-67 and col. 4 lines 1-5.

Regarding claim 19, this claim has similar limitations of claim 13. Therefore, it is rejected under Albert for the same reasons set forth in the rejection of claim 13, col. 3 lines 65-67 and col. 4 lines 1-5.

Regarding claim 20, the medium of the Foreign Agent is capable of recordable data storage and a modulated carrier signal, col. 3 lines 65-67 and col. 4 lines 1-5.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Chang et al (US 6,724,759) hereinafter referred as Chang.

Regarding claim 5, Albert teaches all claimed limitations, except the Foreign Agent 1 switch (*the first switch*) comprises a first sub-switch and a second sub-switch.

Chang teaches a switch comprises a first sub-switch (SF1 2202a in Fig. 22) and a second (SF2 2202b in Fig. 22) sub-switch for transferring a packet within a fabric switch, col. 17 lines 46-48).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the switch of Chang with Albert, such that to provide an efficient and highly reliable switching system.

The suggestion/motivation for doing so would have been to provide an efficient and highly reliable switching system (Chang col. 2 lines 45-51).

Therefore, it would have been obvious to combine Chang with Albert to obtain the invention as specified in claim 5.



Regarding claim 6, this claim has similar limitations of claim 5. Therefore, it is rejected under Albert and Chang for the same reasons set forth in the rejection of claim 5.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huang et al (US 6,308,282); Richter (US 2003/0097481); Wang et al (US 6,757,242); Chen et al (US 6,715,098); Blumenau et al (US 6,421,711); Craft et al (US 6,687,758) are cited to show a system and method of Network Node Failover Using Path Rerouting By Manager Component or Switch Port Remapping, which is considered pertinent to the claimed invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Khuong whose telephone number is 571-272-3157. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Lee T. Khuong

Examiner

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**DUCHO**  
**PRIMARY EXAMINER**



12-10-04